Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

day. The oil is quite similar in appearance to the Wyandotte oil, an analysis of which is published in the Fourth Quarterly Report of the Kansas Board of Agriculture (1885). In the examination of the Fort Scott oil, it was heated to 600° F., when 50–60 per cent. of a clear distillate was obtained. This is excellent as a lubricating oil, and burns with a smoky flame, by the use of a wick. The fact that it does not get solid except at a very low temperature, adds to its value as a lubricant. The original oil has also been used for the same purpose, with excellent success. It has a specific gravity of .922, and a flash point of 385° F. With petroleum at its present price, it is probably cheaper to buy lubricating oils than to manufacture them; but this oil may be of commercial importance in the future.

III.

ELLSWORTH COUNTY MINERAL WATERS.

A remarkably pure water from a point about seven miles west of Brookville has been examined. It is clear, and of excellent color and agreeable taste. It contains only 8.097 grains of solid matter per gallon. This is chiefly bicarbonate of lime, sulphate of lime, and chloride of sodium, with traces of silica, alumina, and bicarbonate of magnesia.

Another water, from a well some distance southwest of Brookville, proves to be a strong sulphur water. It is clear and limpid at first, but after a time deposits sulphur, and probably a compound of sulphur and iron. The water contains much magnesia, existing probably as chloride; iron, probably as chloride; calcium, as sulphate and sulphide; salt; free sulphuretted hydrogen gas, and silica. This may be mentioned as a water of considerable interest, and quite likely to be of value medicinally.

ON SOME KANSAS MINERAL WATERS.

BY G. H. FAILYER AND J. T. WILLARD.

To put them in permanent form for reference and comparison, we present the results of the analyses during the past year, of some mineral waters of this State.

No. 1 is a water from a spring near Omio, Jewell county. No. 2 from a spring five miles west of White Rock, Jewell county. No. 3 from a well near Stotler, Lyon county. No. 4 from a well at Columbus, Cherokee county:

NO. 1.

Substance.	*Grams per litre.*	*Grains per U. S. gallon.*
Potassium Oxide	.3406	19.9038
Sodium Oxide	.2509	14.6619
Lithium Oxide	.0115	.6510
Calcium Oxide	.6654	38.8842
Magnesium Oxide	1.1892	69.4938
Alumina	.1940	11.3368
Ferrous Oxide	trace.	trace.
Sulphuric Acid (SO_3)	4.2200	246.6058
Chlorine	.1491	8.7130
Boracic Acid (B_2O_3)	.0039	.2279
Silica	.0862	5.0375
No carbonates present.		

NO. 2.

Substance.	*Grams per litre.*	*Grains per U. S. gallon.*
Potassium Oxide	.13438	7.83677
Sodium Oxide	.17780	10.36894
Lithium Oxide	.00300	.17495
Calcium Oxide (as bicarbonate)	.23256	13.60143
Calcium Oxide (not as bicarbonate)	.54838	31.98043
Magnesium Oxide (as bicarbonate)	trace.	trace.
Magnesium Oxide (not as bicarbonate)	.76036	44.34268
Ferrous Oxide (as bicarbonate)	.01197	.69807
Sulphuric Acid (SO_3)	2.64284	154.12514
Chlorine	.02113	1.23227
Phosphoric Acid (P_2O_5)	.00024	.01400
Boric Acid	trace.	trace.
Silica	.02098	1.22351
Carbonic Acid present, but not determined.		

NO. 3.

Substance.	*Grams per litre.*	*Grains per U. S. gallon.*
Potassium Oxide	.06687	3.89972
Sodium Oxide	.13088	7.63266
Calcium Oxide (as bicarbonate)	trace.	trace.
Calcium Oxide (not as bicarbonate)	.29865	17.41667
Magnesium Oxide (not as bicarbonate)	.09341	5.44748
Ferrous Oxide (as bicarbonate)	.04536	2.64530
Sulphuric Acid, (SO_3)	.78970	46.05372
Chlorine	.01690	.98557
Phosphoric Acid (P_2O_5)	.00039	.02275
Silica	.03320	1.93616
Carbonic Acid not determined.		

NO. 4.

Substance.	*Grams per litre.*	*Grains per U. S. gallon.*
Potassium Oxide	.00419	.24434
Sodium Oxide (as bicarbonate)	.13389	7.80796
Sodium Oxide (not as bicarbonate)	.02123	1.23807
Lithium Oxide	.00010	.00594
Strontium Oxide	trace.	trace.
Calcium Oxide (as bicarbonate)	.05740	3.34745
Calcium Oxide (not as bicarbonate)	.00336	.19571
Magnesium Oxide (as bicarbonate)	.02605	1.51936
Magnesium Oxide (not as bicarbonate)	.01080	.62962
Alumina	trace.	trace.
Manganous Oxide (as bicarbonate)	.00030	.01647
Ferrous Oxide (as bicarbonate)	.00068	.03948
Sulphuric Acid (SO_3)	.01200	.69982
Chlorine	.03550	2.07052
Thiosulphuric Acid (hyposulphurous acid, S_2O_2)	.00720	.41989
Hydrogen Sulphide (sulphuretted hydrogen)	.01105	.64441
Silica	.00670	.39073
Sulphur in suspension and free Carbonic Acid, not determined.		

The Hydrogen Sulphide is equal to 7.27 cc. per litre, or 1.68 cu. in. per gallon. No other sulphides were present.